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PP	ı	5,143,854	9/1/1992	Pirrung et al.			<u> </u>
_ '\	2	5,202,231	4/13/1993	Drmanac et al.			
	3	5,258,506	11/2/1993	Urdea et al.			
	4	5,288,468	2/22/1994	Church et af.			
	5	5.371,241	12/6/1994	Brush et al.			
	6	5,424,186	6/13/1995	Fodor et al.			
V	7	5,278,298	1/11/1994	Chakraborty et al.			•

FOREIGN PATENT DOCUMENTS

			DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANS- LATION IF APPRO- PRIATE
PF)	8	WO 89/10977	16-NOV-89	Europe WIPO	e		
		9	WO 90/15070	13-DEC-90	Europe			
		10	WO 92/10588	25-JUN-92	Europe			
		11	WO 92/16655	1-OCT-92	PCT V			
V	/	12	EP 0 601 714 A1	15-JUN-94	Europe			

OTHER DOCUMENTS (including Author, Title, Date, Pertinent Pages, Etc.)

00		13	Day et al., "Detection of Steroid 21-Hydroxylase Alleles Using Gene-Specific PCR and a Multiplexed Ligation Detection					
1			Reaction," Genomics, 29:152-162 (1995)					
		14	Grossman et al., "High-Density Multiplex Detection of Nucleic Acid Sequences: Oligonucleotide Ligation Assay and					
			Sequence-Coded Separation," Nucleic Acids Research, 22(21):4527-4534(1994)					
		15	Jin et al., "Alternating Current Impedance Characterization of the Structure of Alkylsiloxane Self-Assembled Monolayers					
			on Silicon," <u>Langmuir</u> , 10:2662-2671 (1994)					
		16	Cheng et al., "In Situ Attenuated Total Reflectance Fourier Transform Infrared Spectroscopy of Carboxylate-Bearing,					
			Siloxane-Anchored, Self-Assembled Monolayers: A Study of Carboxylate Reactivity and Acid-Base Properties," <u>Langmuir</u> , 11:1190-1195 (1995)					
			11.(130-1135)					
P. Ponnalun i/16/04								
EXAMINE			if citation considered, whether or not citation is in conformance with MPEP 609: Draw line through citation if not in conformance and					
			py of this form with next communication to applicant.					

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPRO- PRIATE
PD	17	5,290,925	3/1/1994	Fino			
	18	5,324,633	6/28/1994	Fodor et al.			
	19	5,352,582	10/4/1994	Lichtenwalter et al.			
	20	5,405,783	4/11/1995	Pirrung et al.			
	21	5,470,705	11/28/1995	Grossman et al.			
,	22	-5,494,810	2/27/1996	Barany et al.			
	23	5,525,464	06/11/96	Drmanac et al.			

FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANS- LATION IF APPRO- PRIATE
PP	24	WO 93/17126	2-SEPT-93	Europe WIPO			
	25	WO 93/20236	14-OCT-93	Europe			
	26	WO 94/17210	4-AUG-94	Ефоре			
	27	WO 94/17206	4-AUG-94	Europe			
J	28	WO 94/11530	26-MAY-94	Egrope			

OTHER DOCUMENTS (including Author, Title, Date, Pertinent Pages, Etc.)

_ 1	20	King and ADD-1 and California 11 (AM)	the standard to the standard t
l Pol	29	Kim et al., "Polymeric Self-Assembled Monolayers, 2, Synt	hesis and Characterization of Self-Assembled Polydiacetylene
1 7		Mono- and Multilayers," J. Am. Chem. Soc., 117:3963-3967	(1995)
	30	Lauer et al., "Cloning, Nucleotide Sequence, and Engineered	Expression of Thermus thermophilus DNA Ligase, a Homolog
		of Escherichia coli DNA Ligase," Journal of Bacteriology, 1	73(16):5047-5053 (1991)
	31	Barany et al., "Cloning, Overexpression and Nucleotide Sequ	ience of a Thermostable DNA Ligase-Encoding Gene,"
		Gene, 109:1-11 (1991)	
	32	Jou et al., "Deletion Detection in the Dystrophin Gene by Mu	ultiplex Gap Ligase Chain Reaction and
		Immunochromatographic Strip Technology, Human Mutatio	n. 5:86-93 (1995)
V	33	Chan et al., "Polymeric Self-Assembled Monolayers. 3. Pat	tern Transfer by Use of Photolithography, Electrochemical
		Methods, and an Ultrathin, Self-Assembled Diacetylenic Res	sist," J. Am. Chem. Soc., 117:5875-5976 (1995)
EXAMINER	P-P	onnalun'	DATE CONSIDERED 1/16/04
		ation considered, whether or not citation is in conformance w	ith MPEP 609: Draw line through citation if not in conformance and

- 4			 	
	U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE	ATTY. DOCKET NO.	SERIAL NO.	
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EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPRO PRIATE
PD	34	5,412,087	05/02/95	McGall et al.			
	35	4,883,750	11/28/89	Whiteley et al.			
	36	4,683,202	07/28/87	Mullis et al.			
	37	5,744.305	04/28/98	Fodor et al.			
	38	5,695,934	12/09/97	Brenner			
/	39	5,981,176	11/09/99	Wallace			<u> </u>
	40	5,415,839	5/16/95	Zaun et al.			

FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANS- LATION IF APPRO- PRIATE
PP	41	WO 94/09022	04/28/94	WO WIPO			
	42	WO 90/11372	4/1990	wp			
	43	WO 93/25563	12/1993	wb V			

OTHER DOCUMENTS (including Author, Title, Date, Pertinent Pages, Etc.)

		7					
ا مم ا	44	Munkholm et al., "Polymer Modification of Fiber Optic Chemical Sensors as a Method of Enhancing Fluorescence Signal					
77		for pH Measurement," <u>Anal. Chem.</u> , 58:1427-1430 (1986)					
	45 Graham et al., "Gene Probe Assays on a Fibre-Optic Evanescent Wave Biosensor," Biosensors & Bioelectronics,						
		7:487-493 (1992)					
	46	Chetverin et al., "Sequencing of Pools of Nucleic Acids on Oligonucleotide Arrays," <u>BioSystems</u> , 30:215-231 (1993)					
	47	Pease et al., "Light-Generated Oligonucleotide Arrays for Rapid DNA Sequence Analysis," Proc. Natl. Acad. Sci. USA,					
		91:5022-5026 (1994)					
	48	Beattie et al., "Advances in Genosensor Research," Clin. Chem., 41(5) 700-706 (1995)					
EXAMINER	P. Pon	naturi Date considered 1/16/04					

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

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80	49	5,834,181 11/10/98 Shuber	Shuber				
	50	5,648,213	7/15/97	Reddy et al.			
	51	5,667,974	9/16/97	Brikenmeyer			
<i>y</i>	52	5,391,480	2/21/95	Davis et al.			

FOREIGN PATENT DOCUMENTS

	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANS- LATION IF APPRO- PRIATE
				. <u> </u>		

OTHER DOCUMENTS (including Author, Title, Date, Pertinent Pages, Etc.)

Po		53	Bains, "Mixed Hybridization and Conventional Strategies for DNA Sequencing," Gata, 10(3-4):84-94 (1993)
1 (54	Kuznetsova et al., "DNA Sequencing by Hybridization with Oligonucleotides Immobilized in a Gel," Mol. Biol. (Mosk)
			(Russia), 28(2):290-299
		55	Lysov et al., "Measurement of Distances Between DNA Segments Increases the Efficiency of Sequencing by Hybridization
			with Oligonucleotide Matrix," Molecular Biology, 28(3):433-436 (1994)
		56	Livshits et al., "Dissociation of Duplexes Formed by Hybridization of DNA with Gel-Immobilized Oligonucleotides,"
			Journal of Biomolecular Structure & Dynamics, 11(4):783-812 (1994)
}		57	Davis et al., "Quantitative Detection of Hepatitis C Virus RNA With a Solid-phase Signal Amplification Method: Definition
			of Optimal Conditions for Specimen Collection and Clinical Application in Interferon-treated Patients," <u>Hepatology</u> .
			19(6):1337-1341 (1994)
		58	Urdea, "Synthesis and Characterization of Brunched DNA (bDNA) for the Direct and Quantitative Detection of
			CMV, HBV, HCV, and HIV," <u>Clincal Chemistry</u> , 39(4):725-726 (1993)
		59	Reynolds et al., "Analysis of Genetic Markers in Forensic DNA Samples Using the Polymerase Chain Reaction," Anal.
			<u>Chem.</u> , 63:2-15 (1991))
EXAMIN	ER /). /	onnalun' Date considered 1/16/04-

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

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				i	

OTHER DOCUMENTS (including Author, Title, Date, Pertinent Pages, Etc.)

	_							
0	۸		61	Buyse et al., "Rapid DNA Typing of Class II HLA Antigens U	Jsing the Polymerase Chain Reaction and Reverse Dot Blot			
ľ	Ĺ		Hybridization," Tissue Antigens, 41:1-14 (1993)					
			62	Gyllensten et al., "PCR-Based HLA Class II Typing." PCR M	leth. Appl., 1:91-98 (1991)			
	L							
			63	Chamberlain et al., "Deletion Screening of the Duchenne Mus	scular Dystrophy Locus Via Multiplex DNA Amplification,"			
			<u>L</u>	Nucleic Acids Res., 16:11141-56 (1988)				
			64 Tsui, Mutations and Sequence Variations Detected in the Cystic Fibrosis Transmembrane Conductance Regulator					
				(CFTR) Gene: A Report From the Cystic Fibrosis Genetic Ar	nalysis Consortium," <u>Human Mutat</u> 1:197-203 (1992)			
			65	Hollstein et al., "p53 Mutations in Human Cancers," Science,	253:49-53 (1991)			
			66	Saiki, et al., "Enzymatic Amplification of β-Globin Genomic	Sequences and Restriction Site Analysis for Diagnosis of			
				Sickle Cell Anemia," Science, 230:1350 (1985)				
	/		67	Wu, et al., "The Ligation Amplification Reaction (LAR) An	nplification of Specific DNA Sequences Using Sequential			
				Rounds of Template-Dependent Ligation," Genomics, 4:560-6	59 (1989)			
EXA	MIN	VER	Pon	nahin'	DATE CONSIDERED 1/16/04			

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

0.0		68	Landegren, et al., "A Ligase-Mediated Gene Detection Technique," Science, 241:1077-80 (1988)
V 1			
		69	Winn-Deen, et al., "Sensitive Fluorescence Method for Detecting DNA Ligation Amplification Products," Clinical
			<u>Chemistry</u> , 37(9):1522-23 (1991)
		70	Barany, "Genetic Disease Detection and DNA Amplification Using Cloned Thermostable Ligase," Proc. Nat'l Acad. Sci.
			<u>USA</u> , 88:189-93 (1991)
		71	Barany, "The Ligase Chain Reaction n a PCR World," PCR Methods and Applications, 1:5-16 (1991)
		72	Gibbs et al., "Detection of Single DNA Base Differences by Competitive Oligonucleotide Priming," Nucleic Acids Res.,
			17:2437-48 (1989)
		73	Chehab, et al., "Detection of Specific DNA Sequences by Fluorescence Amplification: A Color Complementation Assay,
			"Proc. Natl. Acad. Sci. USA, 86:9178-82 (1989)
<i>J</i>		74	Livak et al., "Detection of Single Base Differences Using Biotinylated Nucleotides With Very Long Linker Arms,"
			<u>Nucleic Acids Res.</u> , 20:4831-37 (1989)
EXAMINI	P.	Por	naturi Date considered 1/16/04
EXAMINI	ER: Initial	if cita	tion considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and

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FOREIGN PATENT DOCUMENTS

DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANS- LATION IF APPRO- PRIATE

OTHER DOCUMENTS (including Author, Title, Date, Pertinent Pages, Etc.)

_	75	Nickerson et al., "Automated DNA Diagnostics Using an ELISA-Based Oligonucleotide Ligation Assay," Proc. Natl. Acad.		
7 /		Sci. USA, 87:8923-27 (1990)		
	76	Cronin et al., "Cystic Fibrosis Mutation Detection by Hybridization to Light-Generated DNA Probe Arrays," Human		
		Mutation, 7:244-255 (1996)		
	77	Milner et al., "Selecting Effective Antisense Reagents on Combinatorial Oligonucleotide Arrays," Nature		
		Biotechnology, 15:537-541 (1997)		
	78	Wang et al., "Large-Scale Identification, Mapping, and Genotyping of Single-Nucleotide Polymorphisms in the Humane Genome." Science, 280:1077-1082 (1998)		
	79	Southern, "DNA Chips: Analysing Sequence by Hybridization to Oligonucleotides on a Large Scale," ŢļĢ.		
		12(3):110-115 (1996)		
	80	Barany, "Ligase Chain Reaction (LCR) - Overview and Applications," PCR Methods and Applications, 3(4):S51-S64		
_		(1994)		
	81	lovannisci et al., "Ligation Amplification and Fluorescence Detection of Mycobacterium Tuberculosis DNA," Mol. Cell.		
J		Probes. 7(1):35-43 (1993)		
AMINER /	Poni	natur DATE CONSIDERED 1/16/04		

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

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OTHER DOCUMENTS (including Author, Title, Date, Pertinent Pages, Etc.)

	82	Telenti et al., "Competitive Polymerase Chain Reaction Using an Internal Standard: Application to the Quantitation				
PP		of Viral DNA," J. Virol. Meth., 39(3):259-268 (1992)				
	83	Guo et al., "Direct Fluorescence Analysis of Genetic Polymorphisms by Hybridization with Oligonucleotide Arrays on				
		Glass Supports," Nucl. Acids. Res., 22(24):5456-5465 (1994)				
	84	Sambrook et al., Molecular Cloning A Laboratory Manual, 2 Ed., Cold Spring Laboratory Press (1989)				
p. Ponnalun		nalun' DATE CONSIDERED 1/16/04				
EXAMINER: In	nitial if cita	tion considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and				
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